



IFWO

RAW SEQUENCE LISTING

DATE: 10/01/2004

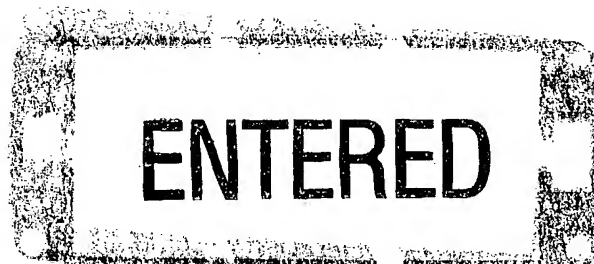
PATENT APPLICATION: US/10/820,622

TIME: 10:50:21

Input Set : N:\LMOORE\pto.lm.txt

Output Set: N:\CRF4\10012004\J820622.raw

4 <110> APPLICANT: Sirna Therapeutics, Inc.
 5 Susan, Radka
 7 <120> TITLE OF INVENTION: Antibodies Having Specificity for Nucleic Acids
 9 <130> FILE REFERENCE: 900/051 (MBHB02-030-B)
 11 <140> CURRENT APPLICATION NUMBER: US 10/820,622
 12 <141> CURRENT FILING DATE: 2004-04-08
 14 <150> PRIOR APPLICATION NUMBER: US 10/366,191
 15 <151> PRIOR FILING DATE: 2003-02-12
 17 <150> PRIOR APPLICATION NUMBER: US 60/356,298
 18 <151> PRIOR FILING DATE: 2002-02-13
 20 <160> NUMBER OF SEQ ID NOS: 76
 22 <170> SOFTWARE: PatentIn version 3.0
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 34
 27 <212> TYPE: RNA
 28 <213> ORGANISM: Artificial Sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: Description of Artificial Sequence: Enzymatic Nucleic Acid
 35 <220> FEATURE:
 36 <221> NAME/KEY: misc_feature
 37 <222> LOCATION: (1)..(4)
 38 <223> OTHER INFORMATION: Phosphorothioate 3'-Internucleotide Linkage
 40 <220> FEATURE:
 41 <221> NAME/KEY: misc_feature
 42 <222> LOCATION: (1)..(7)
 43 <223> OTHER INFORMATION: 2'-O-Methyl
 45 <220> FEATURE:
 46 <221> NAME/KEY: misc_feature
 47 <222> LOCATION: (11)..(11)
 48 <223> OTHER INFORMATION: 2'-O-Methyl
 50 <220> FEATURE:
 51 <221> NAME/KEY: misc_feature
 52 <222> LOCATION: (13)..(25)
 53 <223> OTHER INFORMATION: 2'-O-Methyl
 55 <220> FEATURE:
 56 <221> NAME/KEY: misc_feature
 57 <222> LOCATION: (27)..(28)
 58 <223> OTHER INFORMATION: 2'-O-Methyl
 60 <220> FEATURE:
 61 <221> NAME/KEY: misc_feature
 62 <222> LOCATION: (30)..(34)
 63 <223> OTHER INFORMATION: 2'-O-Methyl
 65 <220> FEATURE:



RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/820,622

DATE: 10/01/2004

TIME: 10:50:21

Input Set : N:\LMOORE\pto.lm.txt

Output Set : N:\CRF4\10012004\J820622.raw

66 <221> NAME/KEY: misc_feature
 67 <222> LOCATION: (8)..(8)
 68 <223> OTHER INFORMATION: 2'-deoxy-2'-C-allyl
 71 <220> FEATURE:
 72 <221> NAME/KEY: misc_feature
 73 <222> LOCATION: (34)..(34)
 74 <223> OTHER INFORMATION: 3'-end phosphate attached to an inverted deoxyabasic moiety,
 in a 3'-3
 75 orientation
 77 <400> SEQUENCE: 1
 78 gaguugcuga ugaggccgaa aggccgaaag ucug 34
 81 <210> SEQ ID NO: 2
 82 <211> LENGTH: 13
 84 <212> TYPE: RNA
 85 <213> ORGANISM: Homo Sapien
 87 <400> SEQUENCE: 2
 88 ugagcugcac ugc 13
 91 <210> SEQ ID NO: 3
 92 <211> LENGTH: 33
 93 <212> TYPE: RNA
 94 <213> ORGANISM: Artificial Sequence
 96 <220> FEATURE:
 97 <223> OTHER INFORMATION: Description of Artificial Sequence: Enzymatic Nucleic Acid
 100 <220> FEATURE:
 101 <221> NAME/KEY: misc_feature
 102 <222> LOCATION: (1)..(4)
 103 <223> OTHER INFORMATION: Phosphorothioate 3'-Internucleotide Linkage
 105 <220> FEATURE:
 106 <221> NAME/KEY: misc_feature
 107 <222> LOCATION: (1)..(15)
 108 <223> OTHER INFORMATION: 2'-O-Methyl
 110 <220> FEATURE:
 111 <221> NAME/KEY: misc_feature
 112 <222> LOCATION: (17)..(22)
 113 <223> OTHER INFORMATION: 2'-O-Methyl
 115 <220> FEATURE:
 116 <221> NAME/KEY: misc_feature
 117 <222> LOCATION: (25)..(25)
 118 <223> OTHER INFORMATION: 2'-O-Methyl
 121 <220> FEATURE:
 122 <221> NAME/KEY: misc_feature
 123 <222> LOCATION: (27)..(33)
 124 <223> OTHER INFORMATION: 2'-O-Methyl
 126 <220> FEATURE:
 127 <221> NAME/KEY: misc_feature
 128 <222> LOCATION: (16)..(16)
 129 <223> OTHER INFORMATION: 2'-deoxy-2'-amino
 132 <220> FEATURE:
 133 <221> NAME/KEY: misc_feature
 134 <222> LOCATION: (26)..(26)

RAW SEQUENCE LISTING

DATE: 10/01/2004

PATENT APPLICATION: US/10/820,622

TIME: 10:50:21

Input Set : N:\LMOORE\pto.lm.txt

Output Set: N:\CRF4\10012004\J820622.raw

135 <223> OTHER INFORMATION: 2'-deoxy-2'-amino
 137 <220> FEATURE:
 138 <221> NAME/KEY: misc_feature
 139 <222> LOCATION: (33)..(33)
 140 <223> OTHER INFORMATION: 3'-end phosphate attached to an inverted deoxybasic moiety,
 in a 3'-3
 141 orientation
 143 <400> SEQUENCE: 3
 144 gcaguggccg aaaggcgagu gaggucuagc uca 33
 147 <210> SEQ ID NO: 4
 148 <211> LENGTH: 15
 149 <212> TYPE: RNA
 150 <213> ORGANISM: Artificial Sequence
 152 <220> FEATURE:
 153 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleic Acid Substrate
 156 <220> FEATURE:
 157 <221> NAME/KEY: misc_feature
 158 <222> LOCATION: (1)..(6)
 159 <223> OTHER INFORMATION: n stands for a, c, g, or u
 162 <220> FEATURE:
 163 <221> NAME/KEY: misc_feature
 164 <222> LOCATION: (9)..(15)
 165 <223> OTHER INFORMATION: n stands for a, c, g, or u
 167 <400> SEQUENCE: 4
 W--> 168 nnnnnnuhnn nnnnn 15
 171 <210> SEQ ID NO: 5
 172 <211> LENGTH: 36
 173 <212> TYPE: RNA
 174 <213> ORGANISM: Artificial Sequence
 176 <220> FEATURE:
 177 <223> OTHER INFORMATION: Description of Artificial Sequence: Enzymatic Nucleic Acid
 180 <220> FEATURE:
 181 <221> NAME/KEY: misc_feature
 182 <222> LOCATION: (1)..(7)
 183 <223> OTHER INFORMATION: n stands for a, c, g, or u
 185 <220> FEATURE:
 186 <221> NAME/KEY: misc_feature
 187 <222> LOCATION: (16)..(18)
 188 <223> OTHER INFORMATION: n stands for a, c, g, or u
 190 <220> FEATURE:
 191 <221> NAME/KEY: misc_feature
 192 <222> LOCATION: (23)..(25)
 193 <223> OTHER INFORMATION: n stands for a, c, g, or u
 195 <220> FEATURE:
 196 <221> NAME/KEY: misc_feature
 197 <222> LOCATION: (31)..(36)
 198 <223> OTHER INFORMATION: n stands for a, c, g, or u
 201 <220> FEATURE:
 202 <221> NAME/KEY: misc_feature
 203 <222> LOCATION: (1)..(8)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/820,622

DATE: 10/01/2004

TIME: 10:50:21

Input Set : N:\LMOORE\pto.lm.txt

Output Set: N:\CRF4\10012004\J820622.raw

```

204 <223> OTHER INFORMATION: 2'-O-Methyl
206 <220> FEATURE:
207 <221> NAME/KEY: misc_feature
208 <222> LOCATION: (12)..(12)
209 <223> OTHER INFORMATION: 2'-O-Methyl
211 <220> FEATURE:
212 <221> NAME/KEY: misc_feature
213 <222> LOCATION: (14)..(26)
214 <223> OTHER INFORMATION: 2'-O-Methyl
216 <220> FEATURE:
217 <221> NAME/KEY: misc_feature
218 <222> LOCATION: (28)..(29)
219 <223> OTHER INFORMATION: 2'-O-Methyl
221 <220> FEATURE:
222 <221> NAME/KEY: misc_feature
223 <222> LOCATION: (31)..(36)
224 <223> OTHER INFORMATION: 2'-O-Methyl
226 <220> FEATURE:
227 <221> NAME/KEY: misc_feature
228 <222> LOCATION: (9)..(9)
229 <223> OTHER INFORMATION: 2'-deoxy-2'-C-Allyl
231 <400> SEQUENCE: 5
W--> 232 nnnnnnnncug augagnnnga aannncgaaa nnnnnn36
235 <210> SEQ ID NO: 6
236 <211> LENGTH: 14
237 <212> TYPE: RNA
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleic Acid Substrate
244 <220> FEATURE:
245 <221> NAME/KEY: misc_feature
246 <222> LOCATION: (1)..(5)
247 <223> OTHER INFORMATION: n stands for a, c, g, or u
249 <220> FEATURE:
250 <221> NAME/KEY: misc_feature
251 <222> LOCATION: (8)..(14)
252 <223> OTHER INFORMATION: n stands for a, c, g, or u
254 <400> SEQUENCE: 6
W--> 255 nnnnnchnnn nnnn
258 <210> SEQ ID NO: 7
259 <211> LENGTH: 35
260 <212> TYPE: RNA
261 <213> ORGANISM: Artificial Sequence
263 <220> FEATURE:
264 <223> OTHER INFORMATION: Description of Artificial Sequence: Enzymatic Nucleic Acid
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (1)..(7)
270 <223> OTHER INFORMATION: n stands for a, c, g, or u

```

14

RAW SEQUENCE LISTING

DATE: 10/01/2004

PATENT APPLICATION: US/10/820,622

TIME: 10:50:21

Input Set : N:\LMOORE\pto.lm.txt

Output Set: N:\CRF4\10012004\J820622.raw

```

272 <220> FEATURE:
273 <221> NAME/KEY: misc_feature
274 <222> LOCATION: (16)..(18)
275 <223> OTHER INFORMATION: n stands for a, c, g, or u
277 <220> FEATURE:
278 <221> NAME/KEY: misc_feature
279 <222> LOCATION: (23)..(25)
280 <223> OTHER INFORMATION: n stands for a, c, g, or u
282 <220> FEATURE:
283 <221> NAME/KEY: misc_feature
284 <222> LOCATION: (31)..(35)
285 <223> OTHER INFORMATION: n stands for a, c, g, or u
287 <220> FEATURE:
288 <221> NAME/KEY: misc_feature
289 <222> LOCATION: (1)..(8)
290 <223> OTHER INFORMATION: 2'-O-Methyl
292 <220> FEATURE:
293 <221> NAME/KEY: misc_feature
294 <222> LOCATION: (12)..(12)
295 <223> OTHER INFORMATION: 2'-O-Methyl
297 <220> FEATURE:
298 <221> NAME/KEY: misc_feature
299 <222> LOCATION: (14)..(26)
300 <223> OTHER INFORMATION: 2'-O-Methyl
302 <220> FEATURE:
303 <221> NAME/KEY: misc_feature
304 <222> LOCATION: (28)..(29)
305 <223> OTHER INFORMATION: 2'-O-Methyl
307 <220> FEATURE:
308 <221> NAME/KEY: misc_feature
309 <222> LOCATION: (31)..(35)
310 <223> OTHER INFORMATION: 2'-O-Methyl
312 <220> FEATURE:
313 <221> NAME/KEY: misc_feature
314 <222> LOCATION: (30)..(30)
315 <223> OTHER INFORMATION: n stands for Inosine
317 <220> FEATURE:
318 <221> NAME/KEY: misc_feature
319 <222> LOCATION: (9)..(9)
320 <223> OTHER INFORMATION: 2'-deoxy-2'-C-Allyl
322 <400> SEQUENCE: 7
W--> 323 nnnnnnnncug augagnnnga aannncgaan nnnnn
326 <210> SEQ ID NO: 8
327 <211> LENGTH: 15
328 <212> TYPE: RNA
329 <213> ORGANISM: Artificial Sequence
331 <220> FEATURE:
332 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleic Acid Substrate
335 <220> FEATURE:

```

35

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/820,622

DATE: 10/01/2004
TIME: 10:50:22

Input Set : N:\LMOORE\pto.lm.txt
Output Set: N:\CRF4\10012004\J820622.raw

Please Note:

Sequence of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> or <223> fields of each sequence which presents at least one n or Xaa.

eq#:4; N Pos. ~~1,2,3,4,5,6,9,10,11,12,13,14,15~~
eq#:5; N Pos. ~~1,2,3,4,5,6,7,16,17,18,23,24,25,31,32,33,34,35,36~~
eq#:6; N Pos. ~~1,2,3,4,5,8,9,10,11,12,13,14~~
eq#:7; N Pos. ~~1,2,3,4,5,6,7,16,17,18,23,24,25,30,31,32,33,34,35~~
eq#:8; N Pos. 1,2,3,4,5,6,9,10,11,12,13,14,15
eq#:9; N Pos. 1,2,3,4,5,6,7,29,30,31,32,33,34,35
eq#:18; N Pos. 1,12,13
eq#:19; N Pos. 1
eq#:20; N Pos. 1
eq#:21; N Pos. 1,4,6,11,12,16,17,22
eq#:22; N Pos. 1,7,17
eq#:23; N Pos. 1
eq#:24; N Pos. 1
eq#:25; N Pos. 1
eq#:26; N Pos. 1
eq#:27; N Pos. 1
eq#:28; N Pos. 1
eq#:29; N Pos. 1
eq#:30; N Pos. 1
eq#:31; N Pos. 1,4,6,11,12
eq#:32; N Pos. 1
eq#:33; N Pos. 1,12,13
eq#:34; N Pos. 1
eq#:35; N Pos. 1
eq#:36; N Pos. 1
eq#:37; N Pos. 1
eq#:51; N Pos. 1,21,22
eq#:52; N Pos. 20,21
eq#:53; N Pos. 1,22,23
eq#:54; N Pos. 20,21
eq#:55; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:56; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:57; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:58; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:59; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:60; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:61; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:62; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:63; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
eq#:64; N Pos. 20,21
eq#:65; N Pos. 20,21
eq#:66; N Pos. 20,21
eq#:67; N Pos. 20,21
eq#:68; N Pos. 20,21

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/820,622

DATE: 10/01/2004
TIME: 10:50:22

Input Set : N:\LMOORE\pto.lm.txt

Output Set: N:\CRF4\10012004\J820622.raw

eq#:69; N Pos. 20,21
eq#:70; N Pos. 20,21
eq#:71; N Pos. 20,21
eq#:72; N Pos. 20,21
eq#:76; N Pos. 23,24

VERIFICATION SUMMARY

DATE: 10/01/2004

PATENT APPLICATION: US/10/820,622

TIME: 10:50:22

Input Set : N:\LMOORE\pto.lm.txt

Output Set : N:\CRF4\10012004\J820622.raw

L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:712 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:777 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:850 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:946 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:974 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:1003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:1031 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:1054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:1082 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:1221 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:1260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:1278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:1301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:1329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1845 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1893 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:1961 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:2014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
L:2041 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0
L:2069 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0
L:2097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
L:2130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0
L:2163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:2195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0
L:2228 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:2260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0
L:2293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:2320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
L:2347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
L:2429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0
L:2516 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:0
L:2573 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0
L:2630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:0
L:2687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:0
L:2739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0
L:2827 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/820,622

DATE: 10/01/2004

TIME: 10:50:22

Input Set : N:\LMOORE\pto.lm.txt

Output Set: N:\CRF4\10012004\J820622.raw

L:2883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0